roots

magazine of COOONTOOS

2012

Case report Endodontic microsurgery

| Special - Antibacterial effects of lasers in Endodontics

DENTAL TRIBUNE





Apical Surgery Tips

TIPPED FOR SUCCESS

Extremely versatile ultrasonic and irrigation products for endodontic treatments.



P5 Newtron Range

Our complete series of ultrasonic generators are available with or without self-contained irrigation and LED light. Other options include the Sterikit and a wide selection of tips. (Free CD-ROM Tip Book is available on request)













For further information: 01480 477307

We to create

Dear Reader,



Lisa Townshend

_Welcome to the first issue of Roots for 2012! I hope you enjoy this issue's collection of articles.

My time is flying this year! It seems so short a time since we were gearing up for Christmas, and now we are on the brink of Spring, and conference season!

I just wanted to draw your attention to an event in May – the Clinical Innovations Conference. This two-day event is now in its ninth year, and is a must attend for any dental professional looking for the latest in clinical techniques.

From an endodontic perspective, Richard Kahan will be one of the speakers at the event. As well as working in his specialist practice in Harley Street, Richard is Senior Clinical Part-time lecturer in Endodontology at the prestigious Eastman Dental Institute, University College London teaching endodontics to both postgraduate specialist students and general practitioners.

He has lectured nationally and has written many research papers for refereed journals. Richard's other interest is Information Technology and he is a consultant in dental IT integration. He has recently finished writing a clinical software programme called EndoBiz , you can take a look at www.endobiz.co.uk.

Clinical Innovations Conference 2012 takes place 18–19 May at the Millennium Gloucester Hotel in London. For more information or to secure your place got to www.clinicalinnovations.co.uk or call 02074008989.

Until next time...

Lisa Townshend

Group Editor Roots



editorial

O3 Dear Reader
_Lisa Townshend

news analysis

Of Dental X-rays can predict fractures

Comment

O8 The right to be pain free _Michael Sultan

Opinion

10 Rubber dam hazards
_Dr Kenneth Serota

Case reports

- 13 The excellence in endodontics
 _Dr Daniel Flynn
- 18 White lines or White lies?
 _Dr Rafael Michiels

Trends

22 Key principles that enhance success when restoring endontically treated teeth _Dr Baba and Dr Goodacre

Specials

30 Photo acoustic endodontics using PIPS _Author_G. Olivi¹, R. Crippa¹, E. DiVito², G. Iaria¹, V. Kait

The antibacterial effects of lasers in endodontics
_Selma Camargo

Manufacturer News

sas1 & Prof S. Benedicenti

44 Manufacturer news

Diary Dates

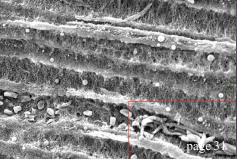
48 **2012**/ Europe/ UK

about the publisher

49 _ Guidelines for submission

50 _ Imprint







Clinical Innovations CONFERENCE 2012

18th and 19th May 2012

Millennium Gloucester Hotel & Conference Centre, London Kensington

info@smile-on.com | www.clinicalinnovations.co.uk | 020 7400 8989



Switch on to new ideas

Speakers:

Prof Nasser Barghi

Dr Richard Kahan

Prof Gianluca Gambarini

Dr Wyman Chan

Dr John Moore

Dr Ajay Kakar

Ms Jackie Coventry

Dr Mona Kakar

Basil Mizrahi

Mhari Coxon

Fraser McCord







Dental X-rays can predict fractures

_By using dental X-rays, the risk of fractures can now be predicted long before a fracture actually occurs, Swedish researchers at the University of Gothenburg's Sahlgrenska Academy have found.

In a previous study, researchers at the Academy and the Public Dental Service of the Region Västra Götaland had demonstrated that a sparse bone structure in the trabecular bone in the mandible is linked to a greater probability of having previously had fractures in other parts of the body. The Gothenburg researchers followed this research with a new study that demonstrates that it is possible to use dental X-rays to investigate the bone structure in the lower jaw, which enables doctors to predict who is at greater risk of fractures in the future. "We have discovered that sparse bone structure in the lower jaw in mid-life is directly linked to the risk of fractures in other parts of the body later in life," said Prof Lauren Lissner, researcher at the Institute of Medicine at the Sahlgrenska Academy.

The study draws on data from The prospective population study of women in Gothenburg, which was begun in 1968. "Given that this study has now been running for over 40 years, the material is globally unique," the Academy stated. The ongoing study includes 731 women, who have been examined on several occasions since 1968, when they were 38 to 60 years old. X-ray images of their jaw bone were analysed in 1968 and 1980 and the results related to the incidence of subsequent fractures. "The youngest cohort is now over 80 years old. Many of the cohorts, who were born earlier, have died.

We regularly check the cohorts' status by monitoring the mortality and hospital registries," Lissner told roots. According to the Academy, for the first 12 years, fractures were self-reported during follow-up examinations. It is only since the 1980s that it has been possible to use medical registers to identify fractures. A total of 222 fractures were identified during the whole observation period.

The study found that the bone structure of the jaw was sparse in around 20 per cent of the participants aged 38 to 54 when the first examination was carried out, and that these participants were at a significantly greater risk of fractures.

The researchers also concluded that the older the person, the stronger the link between sparse bone structure in the jaw and fractures in other parts of the body. Although the study was carried out on women, the researchers believe that the findings could be generalised to men.

"Dental X-rays contain lots of information on bone structure," said Grethe Jonasson, researcher at the Research Centre of the Public Dental Service in Västra Götaland, who initiated the fractures study. "By ana-

lysing these images, dentists can identify people who are at greater risk of fractures long before the first fracture occurs."

The study A prospective study of mandibular trabecular bone to predict fracture incidence in women was published in the October issue of the Bone journal._

trabecular pattern as
dense trabeculation
in a woman with small
intertrabecular space.

Fig. 2_...mixed
dense plus sparse
trabeculation in a

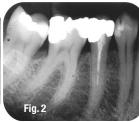
woman with small intertrabecular spaces cervically and larger spaces more apically ... Fig. 3 ...and sparse

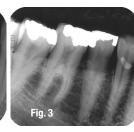
Fig. 1_Reference

images presenting the

trabeculation in a woman with large intertrabecular spaces.



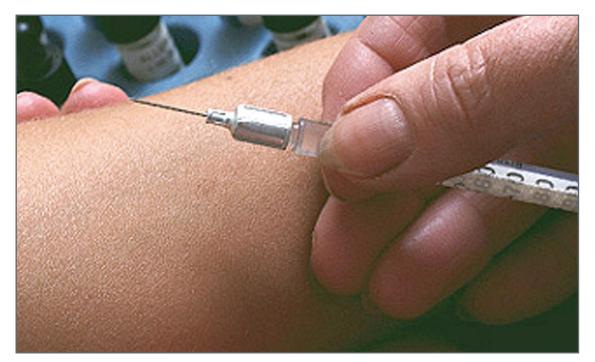






The right to be pain free

Author_Michael Sultan



Pain is defined by The World Health Organisation as "an unpleasant sensory or emotional experience associated with actual or potential tissue damage, or described in terms of such damage".

While recognising its existence, what the WHO doesn't mention is that pain is, of course, entirely subjective which is one of the reasons why it is such a challenge and a major global public health issue. We probably know far more about pain and its treatment than ever before, yet there is a disconnection between having that knowledge and using it to treat and manage pain.

I believe passionately that dental professionals in general, and endodontists in particular, should commit to the right of every patient to be free of pain and through our work as compassionate professionals, to understand acute pain management if we are to provide real health and emotional benefits for our patients.

Last year was perceived as the 'global year against acute pain', during which time the International Association for the Study of Pain (IASP) published a paper that pointed to inadequate education of healthcare practitioners as one of the main reasons for underestimating the seriousness of, and failing to recognise treatment options for, acute pain.

It is clear therefore that, despite huge advances in a vast array of sophisticated medical and nonclinical treatment options, we are part of the problem so we must become part of the solution.

By increasing our own awareness and understanding of the issues surrounding the assessment and treatment of acute pain, we can in turn help educate our colleagues in the use of anaes-

Fig. 1_By
understanding the
use of anaesthetics
and analgesics dental
staff are better placed
to offer information
and help to their
patients

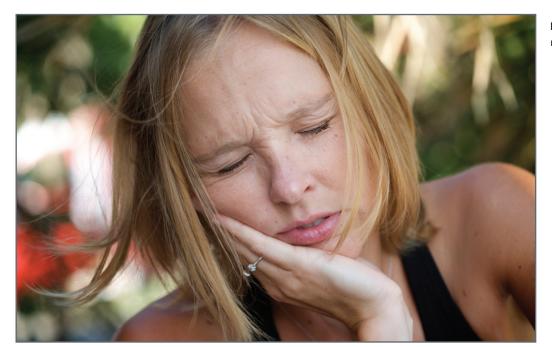


Fig. 2_Every patient has the right to be pain free

thetics and analgesics so they are better placed to offer information and help to their patients, many of whom are reluctant to use painkillers for fear of unpleasant side effects or even, addiction.

Pain is both physical and emotional, which is why it is fundamentally important to recognise that it is subjective and that different people will have different pain thresholds and indeed, vastly different capacity to deal with it. Interestingly, the Australian and New Zealand College of Anaesthetists (ANZCA) puts at the very top of its list of a statement on *Patients' Rights to Pain Management*: "The right to be believed, recognising that pain is a personal experience and that there is a great variability among people in their response to different situations causing pain."

Acute pain is the awareness of noxious signals from damaged tissue and is complicated not only by sensitisation in the periphery but also by changes in the central nervous system. Someone's emotional state can often have a significant influence on pain and increase the level of distress and impact on quality of life. Pain is hugely debilitating and makes life extremely miserable for millions of people every day and there are many underlying cultural, economic and social reasons that should also be taken in to consideration.

I firmly believe that the dental profession must work with the government, policy makers and campaigners to ensure that every patient has access to pain free dentistry. In some cases this will mean NHS patients will receive treatment from private dental specialists, an issue raised by the *Steele* report, which suggested that poorer patients are forced to

settle for extractions and dentures rather than tooth preservation, with root canal treatments a preserve of the rich.

While there is no legally enshrined right to be pain free, there are those who believe that the internationally established and recognised rights to health include that by implication and inference. We can at least encourage greater awareness, better education and knowledge sharing as well as raising patient expectations to be pain free.

author

roots



Dr Michael Sultan BDS MSc DFO FICD is a specialist in Endodontics and the Clinical Director of EndoCare. Michael qualified at Bristol University in 1986. He worked as a general dental practitioner for five years before

commencing specialist studies at Guy's hospital, London. He completed his MSc and in Endodontics in 1993 and worked as an in-house endodontist in various practices before setting up in Harley St, London in 2000. He was admitted onto the specialist register in Endodontics in 1999 and has lectured extensively to postgraduate dental groups as well as lecturing on Endodontic courses at Eastman CPD, University of London. In 2008 he became clinical director of EndoCare - a group of specialist practices. For further information please call EndoCare on 0844 893 2020 or visit www.endocare.co.uk